

## Chemical Reactions Continued:

- Chemical changes...
  - Substances that are reactants rearrange to make products
  - Break old bonds and create new ones
- All chemical reactions involve energy.
  - Every time a bond is made or broken, energy is transferred
  - Breaking a bond requires energy
  - Forming bonds releases energy

- Chemical energy is stored in bonds → the stronger the bond, the more energy it takes to break it
  - Law of Conservation of Energy
    - Energy is neither created nor destroyed → just transferred
    - Energy within reactions is conserved
    - Energy of reactants and activation MUST be the same as energy of products and thermal energy
- activation → whatever it takes to make a reaction happen